Guide to Addressing Wildlife Species and Habitat in an EA Registration Document

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Environment and Labour
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Introduction

Environmental assessment (EA) is a planning and decision-making tool used to promote sustainable development. By predicting and evaluating the environmental effects of an undertaking before it begins there is the opportunity to mitigate potential impacts of the undertaking on the environment. For the public, this process ensures public resources and ecosystem functions are protected; for the proponent, this promotes better project planning, ultimately saving time and money.

Potential effects of undertakings on wildlife species and habitats need to be identified and addressed in environmental assessments. The purpose of this guide is to provide consistent advice regarding the identification of priority species, inventory standards, and mitigation for wild species within the EA process. Through the use of this guide, the proponent can ensure that issues associated with wild species are properly addressed prior to the submission of the EA Registration Document (EA document), in order to avoid delays in the EA process. Proponents with thoroughly prepared EA documents are less likely to be required by the Minister to submit additional information once the EA process has begun.

Key messages contained within this guide include:

- the focus for EA documents are to be on priority species and habitats;
- complete inventories of flora and fauna are generally not required; and
- contact wildlife specialists within the provincial and federal governments with any questions before and during the EA process.

Who needs to be Contacted?

The following government departments and agencies are responsible for the management of wildlife species and habitats in Nova Scotia and should be contacted (refer to Appendix for web site addresses):

Provincial:

- Department of Natural Resources, Wildlife Division (responsible for all wildlife other than that managed by federal government)

Federal:

- Canadian Wildlife Service of Environment Canada (responsible for all migratory birds and for all wildlife on federally owned land)
- Fisheries and Oceans Canada (responsible for all fish habitat and migratory fish)

Other sources for biological data which could be contacted include:

- Nova Scotia Tourism, Culture & Heritage, Heritage Division
- Atlantic Canada Conservation Data Centre
- Published data
- Universities
- Natural history specialists

The Nova Scotia Department of Natural Resources (DNR) is the lead provincial agency for wildlife. Contact DNR's Wildlife Division in Kentville or a Regional Wildlife Biologist when there are questions about the identification of priority species, inventory standards, and mitigation for wild species through the EA process. It is generally a good practice to contact DNR staff before conducting surveys and prior to submitting the official EA Registration document.

DNR's Regional Wildlife Biologists can be contacted for general information but will only release site specific information to the landowner or their agent. If the proponent is not the landowner, they must get written permission from the landowner to receive this information.

What types of Information are available?

The Wildlife Division of the DNR has an online database with the population status of many flora and fauna taxonomic groups throughout Nova Scotia (refer to Appendix for all Data Links/URLs).

As well, species at risk are identified in the Endangered Species Act of Nova Scotia and the federal Species at Risk Act (SARA). Also, refer to the federal Migratory Birds Convention Act (MBCA). Significant habitat data relative to endangered species can also be obtained from the Atlantic Canada Conservation Data Centre.

The Wildlife Division also maintains a significant species and habitat database. Significant habitats include sites where species at risk or other species of conservation concern can be found and/or sites where unusually large concentrations of wildlife occur and/or habitats that are rare in the province. The maps and data base are not the results of a thorough survey and should not be considered a list of all the significant habitats in Nova Scotia.

DNR's Wildlife Division and/or Regional Biologists can also provide information on:

- plant phenology developed for all Red and Yellow species of plants listed under the General Status of Wild Species;
- taxonomic groups of organisms requiring a field inventory;
- comprehensive inventory work required for a specific taxonomic group; and
- necessity of collecting specimens, as collecting specimens in the field is not normally necessary or desirable if the person conducting the field work is fully qualified. Do this prior to conducting field work.

The following sections provide clarification as to species, habitats, and methods for which pertinent information must be collected.

Which species and habitats need to be addressed?

Comprehensive inventories that document all species (versus priority species) within a taxonomic group found within the proposed development area are seldom required, except where the undertaking or geographic location (e.g. significant migration corridor, staging area etc.) has the potential to affect a broad diversity of species (i.e. migratory birds). You should contact the Wildlife Division if you are uncertain whether comprehensive inventory work is required for a specific taxonomic group.

Although the requirement for surveys for migratory birds and mammals are determined on a case-by-case basis, they are not normally required for provincial environmental assessments. Undertakings that have the potential to impact migratory species such as birds and mammals (i.e. Wind Power Generation) will require a field inventory, and in the event the project is approved, follow-up monitoring.

Where potential adverse effects on species are known, or reasonably inferred as potentially occurring, provide a summary of the various mitigation options for consideration.

Priority Species and Habitats to be considered:

The proponent must consider and evaluate those Wild Species identified in the three priority lists indicated below. Through the development of lists of species for each taxonomic group (i.e. birds, mammals, fish, plants, etc.), the proponent can determine which, if any, priority species are known to occur within the broad geographic area where the development is located (i.e. Cape Breton Island, South-west Mainland Nova Scotia, etc.).

1) Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and the Federal Species-at Risk Act (SARA 2003): Proponents must consider all species listed as Endangered, Threatened, or of Special Concern.

2) Nova Scotia Endangered Species Act (NSESA 1999): Proponents must consider all species listed as Endangered, Threatened, or Vulnerable.

3) Nova Scotia General Status of Wild Species: Proponents must consider all species designated as Species of Conservation Concern (Red or Yellow).

Habitat associations for most species at risk and those of conservation concern are known in the province; however comprehensive inventories for many species simply do not exist. It is therefore, impossible to rule out the possibility of a species occurring within habitat on a proposed development site, unless focussed inventories are undertaken by a proponent.

A radius of 100 km around the proposed development site is used as the minimum area for the review of known occurrences of species at risk and conservation concern identified

within the significant species and habitats database. Such a review will capture any species specific, habitat associations or distributional affinities that may exist. Application of the 100 km area within an EA helps to ensure that known occurrences of a species within a particular habitat type that may occur nowhere else in the province outside the bounds of a unique ecological region are considered within the review process.

- Check the Significant Species and Habitat database to establish whether 'HighPriority' polygons are found within a 100 km radius of the proposed site. Secondary checks can be done through the previously mentioned 'Other Sources of Biological Data'. Identify in EA documents any significant species or habitat polygons identified.

Inventory Standards

General Inventory Standards

Qualified professionals (biologist, botanists, etc.) should be hired by the proponent to conduct surveys to identify flora and fauna species that exist or that may exist on the site and throughout any other areas which may be impacted by the development. Surveys should be conducted at the site and during the appropriate growing or breeding season. If a predictive model is used, it should be supported by cited references.

Field inventory methodologies for species and taxonomic groups must be consistent with those developed and recognized by the scientific community. The sampling design and level of effort should be consistent with established standards applied in recognized published literature.

The Federal Department of Environment (i.e. Canadian Wildlife Service) defines inventory standards for migratory birds. Inventory standards for birds not listed under the Migratory Birds Convention Act (e.g. hawks, eagles etc.) are established by the Nova Scotia Department of Natural Resources. Inventory standards for marine mammals and fishes are defined by the Federal Department of Fisheries and Oceans (i.e. DFO).

Collecting specimens in the field is not normally necessary or desirable if the person(s) undertaking the fieldwork is fully qualified. In certain instances (e.g. species listed by COSEWIC or under the Nova Scotia Endangered Species Act), collecting permits may be required. You should contact the Wildlife Division or the local Regional Biologist of NSDNR in advance of undertaking fieldwork, if you intend to do collecting. Specimens collected under appropriate authorization will become the property of the Government of Nova Scotia and must be deposited with appropriate documentation to the Nova Scotia Museum of Natural History within six months following the conclusion of fieldwork.

Ensure that all methodologies applied in the field inventories, including the name(s) and a short biography of the competent expert(s) that undertook the work, are included in the EA document. The proponent must provide a general description and map of all habitats, both

terrestrial and aquatic, found within the proposed development area. Results of the study should be discussed using photos and maps where applicable. Be sure to document any previous disturbance history on the site (i.e. agriculture, mining, forestry, etc.).

Where potential adverse effects on species are known, or reasonably inferred as potentially occurring, provide a summary of the various mitigation options for consideration.

Inventory Standards for Priority Species:

Field inventories for species and taxonomic groups identified as priority species should be conducted during peak periods for optimal detection. Ensure that all methodologies applied in the field inventories, including the name(s) and a short biography of the competent expert(s) that undertook the work, are included in the EA document.

Be sure to document the occurrence(s) of priority species and habitats within the development area using GPS coordinates (Global Positioning Systems) and with photographs, if possible. Provide GPS coordinate data and photos with EA documents. Results of the study should be discussed using these photos and maps.

Where potential adverse effects on priority species are known, or reasonably inferred as potentially occurring, provide a summary of the various options for mitigation for consideration.

Standard Steps to identify and include Priority Species and Habitat Information in EA Documents:

(1) Develop lists of priority species for each taxonomic group (e.g. birds, mammals, fish, plants, butterflies, lichens etc) based on all three priority lists (described on page 3) and associated web sites provided in the Appendix.

(2) Review each list of species independently and determine which (if any) species are known to occur within the broad geographic area where the development is located (e.g. Cape Breton Island vs. SW Mainland of Nova Scotia). Develop and provide a "short-list" of priority species for each taxonomic group based on the outcome(s) of your analysis.

(3) Examine and consider the types and characteristics of habitats for each species and compare these with known attributes of habitats within the development area proposed. Develop and provide a list of species that have habitat requirements aligned with habitats occurring within the development area. Provide a general description and map of all habitats (i.e. both terrestrial and aquatic) found within the proposed development area with a general description of the flora (Note: An exhaustive inventory of all plants within the proposed development area is not normally required). Be sure to document any previous disturbance history on the site (e.g. agriculture, mining, forestry etc.).

(4) Check and consult the Significant Species and Habitat (SigHab) database on the NSDNR website (see Appendix) to establish whether polygons denoting their high priority occur within a 100 km radius of the proposed development area. Secondary checks for geographically referenced information should be made through the Nova Scotia Museum of Natural History, the Atlantic Canada Conservation Data Centre and any other sources published in literature, through universities etc. Include, any significant habitat or species polygons identified, in the EA documents.

(5) Establish peak periods of optimal detection for all priority species identified in steps 1 through 4 and outline proposed field inventory methodologies (See acceptable general inventory standards established elsewhere in this document). Timelines for field inventory of plants are especially important to document thoroughly, with attention to seasonal growth phenology to ensure plants can be found in the field and reliably identified. A plant phenology database developed for all Red and Yellow species of plants listed under the General Status of Wild Species is available from the Wildlife Division, or the Regional Biologist in your area.

(6) Undertakings that have potential to impact migratory species such as birds and mammals (e.g. Wind Power Generation) will require field inventory and in the event the project is approved, follow-up monitoring. Surveys for migratory birds and mammals are not normally required for most provincial environmental assessments and need for them is determined on a case-by-case basis. You should contact the Wildlife Division if you are uncertain which taxonomic groups of organisms will require field inventory for your undertaking.

(7) Conduct field inventories for species and taxonomic groups identified in steps 1 through 6. Be sure to document the methodologies applied in field inventories with the name(s) and a short biography of the competent experts that undertook the work in Registration/EIA documents. All results must be included in the document with a written discussion, photos, and maps. Where potential adverse effects on species are known, or reasonably inferred as potentially occurring as an outcome of the project proceeding, provide a summary of the various options for mitigation.

(8) Contact the Wildlife Division or the Regional Biologist with NSDNR in your area if you have any questions before submitting the Registration document to make sure that all the required steps have been completed. This will save both proponents and consultants time and money; helping to ensure your application can be reviewed quickly without unnecessary delays that could result if the above noted standards are not applied.

Appendix

Contacts

- Nova Scotia Department of Natural Resources, Wildlife Division

  http://www.gov.ns.ca/natr/wildlife/

- Nova Scotia Department of Agriculture & Fisheries

  http://www.gov.ns.ca/nsaf/

- Nova Scotia Tourism, Culture & Heritage, Heritage Division

  http://www.gov.ns.ca/dtc/heritage/default.asp

- Canadian Wildlife Service of Environment Canada

  http://www.cws-scf.ec.gc.ca/index_e.cfm

- Fisheries & Oceans Canada

  http://www.dfo-mpo.gc.ca/

- Atlantic Canada Conservation Data Centre

  http://www.accdc.com/

Data Links

- General Status Ranks of Wild Species in Nova Scotia:

  http://www.gov.ns.ca/natr/wildlife/genstatus/ranks.asp

- Significant Species and Habitats Database:

  http://www.gov.ns.ca/natr/wildlife/Thp/disclaim.htm

- Wildlife Species Protected Under the Endangered Species Act in Nova Scotia:

  http://www.gov.ns.ca/natr/wildlife/endngrd/specieslist.htm

- Committee on the Status of Endangered Wildlife in Canada (COSEWIC):

  http://www.cosewic.gc.ca/index.htm